

CLAIMS

What is claimed is:

1. An electrical adapter configured to be used in testing electrical devices, the electrical adapter comprising:
 - a board having first and second opposing planar surfaces;
 - a male electrical socket coupled to the first planar surface of the board, the male electrical socket adapted for temporary connection to a female electrical interface of a first electrical device; and
 - a female electrical socket coupled to the second planar surface of the board, the female electrical socket adapted for temporary connection to a male electrical interface of a second electrical device,
 - the board including electrical connectors electrically coupling the male and female electrical sockets, wherein one of the first electrical device and the second electrical device is a tester.
2. The electrical adapter of claim 1, further comprising a spacer having a thickness corresponding to a predefined thickness of at least one of
 - the male electrical socket and the female electrical interface of the first electrical device; and
 - the female electrical socket and the male electrical interface of the second electrical device,wherein, the spacer is adapted for positioning between the board and one of the first and second electrical devices.

3. The electrical adapter of claim 2, wherein the spacer comprises;
a flat member having said thickness; and
an aperture formed in the flat member having a size corresponding to a
size of at least one of the male and female electrical sockets.

4. The electrical adapter of claim 1, further comprising a support member
having a thickness corresponding to a predefined thickness of the male electrical socket
and the female electrical interface of the first electrical device, the support member
configured to be positioned between the first planar surface of the board and the first
electrical device.

5. The electrical adapter of claim 1, further comprising a support member
having a thickness corresponding to a predefined thickness of the female electrical
socket and the male electrical interface of the second electrical device, the support
member configured to be positioned between the second planar surface of the printed
circuit board and the second electrical device.

6. The electrical adapter of claim 1, wherein the male electrical socket is
keyed to prevent accidental insertion of a male electrical interface into the male
electrical socket.

7. The electrical adapter of claim 1, wherein the male electrical socket is
keyed to prevent accidental insertion of a female electrical interface into the female
electrical socket.

8. The electrical adapter of claim 1, wherein the male and female electrical sockets are keyed to prevent accidental insertion of an electrical interface of wrong gender.

9. The electrical adapter of claim 1, wherein pins in the male electrical socket are electrically coupled to the electrical connectors in the printed circuit board by a ball grid array.

10. The electrical adapter of claim 1, wherein the female electrical socket has a lifetime rating of no more than 100 insertions and removals from corresponding complementary male electrical interfaces.

11. The electrical adapter of claim 1, wherein the board is a printed circuit board.

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12. A method of testing an electrical device having an electrical interface, comprising:

temporarily connecting an electrical adapter to an electrical device, the electrical adapter comprising a male electrical socket and a female electrical socket that are electrically coupled together, a first one of the male and female electrical sockets being temporarily electrically connected to a complementary electrical interface of the electrical device;

while maintaining the temporary connection of the electrical adapter to the electrical device, connecting the electrical adapter to a tester by temporarily coupling the second one of the male and female electrical sockets of the electrical adapter to a complementary electrical interface of the tester; and performing a test on the electrical device using the tester.

13. The method of claim 12, further comprising disconnecting the electrical device from the tester by disconnecting the second one of the male and female electrical sockets of the electrical adapter from the complementary electrical interface of the tester.

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14. The method of claim 13, further comprising while maintaining the temporary connection of the electrical adapter to the electrical device, repeating the connecting, test performing and disconnecting steps with respect to a plurality of distinct testers, whereby the electrical device is tested using the plurality of distinct testers while its electrical interface is connected only once to a corresponding complementary socket of the electrical device.

15. The method as recited in claim 12, wherein temporarily connecting the electrical adapter to an electrical device further comprises placing a spacer between the electrical adapter and the electrical device, the spacer comprising a body having an aperture formed therethrough, wherein the electrical interface of the electrical device is able to contact the second of the male and female electrical sockets of the electrical adapter through the aperture.

16. The method as recited in claim 12, wherein temporarily connecting an electrical adapter to a tester further comprises placing a spacer between the electrical adapter and the tester, the spacer comprising a body having an aperture formed therethrough, wherein the electrical interface of the tester is able to contact the first one of the male and female electrical sockets of the electrical adapter through the aperture.

17. The method of claim 12, wherein the electrical interface of the electrical device has a lifetime rating of no more than 100 insertions and removals from corresponding complementary sockets.

18. The method of claim 12, wherein the electrical interface of the electrical device has a lifetime rating of no more than 50 insertions and removals from corresponding complementary sockets.

19. The method of claim 12, wherein the electrical device is an optoelectronic device.

20. The method of claim 12, wherein the electrical device is selected from the group consisting of an optoelectronic transceiver and an optoelectronic transponder.

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21. A method of testing electrical devices using a tester, comprising:

temporarily connecting an electrical adapter to a tester, the electrical adapter including a male electrical socket and a female electrical socket that is electrically coupled to the male electrical socket, a first one of the male and female electrical sockets being temporarily electrically connected to an electrical interface of the tester;

while maintaining the temporary connection of the tester to the electrical adapter, temporarily connecting the electrical adapter to an electrical device by electrically coupling the second one of the male and female electrical sockets of the electrical adapter to a complementary electrical interface of the electrical device; and

performing a test on the electrical device using the tester.

22. The method as recited in claim 21, wherein temporarily connecting an electrical adapter to a tester further comprises placing a spacer between the electrical adapter and the tester, the spacer comprising a body having an aperture formed therethrough, wherein the electrical interface of the tester is able to contact the first one of the male and female electrical sockets of the electrical adapter through the aperture.

23. The method as recited in claim 21, wherein temporarily connecting the electrical adapter to an electrical device further comprises placing a spacer between the electrical adapter and the electrical device, the spacer comprising a body having an aperture formed therethrough, wherein the electrical interface of the electrical device is able to contact the second of the male and female electrical sockets of the electrical adapter through the aperture.

24. The method as recited in claim 21, further comprising disconnecting the electrical device from the tester by disconnecting the second one of the male and female electrical sockets of the electrical adapter from the complementary electrical interface of the electrical device.

25. The method as recited in claim 24, further comprising while maintaining the temporary connection of the electrical adapter to the tester, repeating the connecting, test performing, and disconnecting steps with respect to a plurality of distinct electrical devices, whereby the tester is used to test said plurality of electrical devices while its electrical interface is connected only once to a corresponding complementary socket.

26. The method of as recited in claim 21, further comprising disconnecting the electrical adapter from the electrical interface of the tester when at least one pin of the electrical adapter is damaged, whereby the electrical adapter protects pins of the electrical interface of the tester.

27. The method as recited in claim 21, wherein the electrical interface of the tester has a lifetime rating of no more than 100 insertions and removals from corresponding complementary sockets.

28. The method as recited in claim 21, wherein the electrical interface of the tester has a lifetime rating of no more than 50 insertions and removals from corresponding complementary sockets.

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29. A system for using an electrical adapter to test one or more of a plurality of electrical devices, the system comprising:

a first tester having an electrical interface;

a first electrical device having an electrical interface; and

an electrical adapter comprising:

a board having first and second opposing planar surfaces;

a first electrical socket coupled to the first planar surface of the board, the first electrical socket adapted for temporary connection to the electrical interface of the first tester; and

a second electrical socket complementary to the first electrical socket, the second electrical socket coupled to the second planar surface of the board, the second electrical socket adapted for temporary connection to the electrical interface of the first electrical device,

the board including electrical connectors electrically coupling the first electrical socket and the second electrical socket.

30. The system as recited in claim 29, wherein the first tester is one of a plurality of testers.

31. The system as recited in claim 29, wherein the first electrical device is one of a plurality of electrical devices.

32. The system as recited in claim 29, wherein the first electrical socket is a male electrical interface and the second electrical socket is a female electrical interface.

33. The system as recited in claim 29, wherein the first electrical socket is a female electrical interface and the second electrical socket is a male interface.

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